

VENTILATION SYSTEM**ABSTRACT OF THE DISCLOSURE**

The invention relates to a ventilation system for exchanging the air in a room with outside air, which system comprises: A fine wire heat exchanger having a first channel and a second channel, which channels are in heat-exchanging contact with each other, and wherein the first channel has an inlet connected to outside air and an outlet connected to the air in the room, and wherein the second channel has an inlet connected to the air in the room and an outlet connected to the outside air; balancing means for balancing the flow in both channels, such that the heat transfer is maximized. The invention also relates to a combination of a façade, a room on the inside of and adjacent to the façade and a ventilation system, wherein the inlet of the first channel of the system is connected to outside air on the outside of the façade and the outlet is connected to the air in the room, and wherein the inlet of the second channel is connected to the air in the room and the outlet is connected to the outside air.